

MEDIA RELEASE

**International Cryosphere
Climate Initiative**

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Climate Destruction in a Place Dedicated to Peace

Hiroshima's Peace Memorial Risks Being Wiped Out by Rising Seas

*On margins of Antarctica meetings, scientists urge faster climate action to
halt acceleration of Antarctic ice loss and irreversible sea-level rise*

Hiroshima (May 13) Antarctic scientists gathered on the site of the Hiroshima Peace Memorial Museum today to emphasize the growing threat of sea-level rise to Hiroshima, including the site of the Museum itself, without more urgent climate action.

With continued high emissions, Hiroshima might see as much as 1 meter of sea-level rise by 2070, approaching 2 meters (1.7m) by the end of this century and 4 meters by 2150, based on highest estimates from the Intergovernmental Panel on Climate Change (IPCC). Even 1 meter would cut right across the Peace Museum grounds, near the site where scientists held a line of hazard tape to symbolize the danger.

Much of the southern part of the City of Hiroshima also would be inundated, especially at the 2-meter level.

These potential extreme levels could occur if tipping points and instabilities are triggered in the Antarctic Ice Sheet. Conversely, if the global community course-corrects to lower emissions in the next three decades -- reaching net zero by 2050 -- sea-level rise could be limited to around 0.5 meters, leaving most of Hiroshima untouched, though still subject to greater threats from storms and tidal surges.

The exhibit by scientists took place on the margins of the annual Antarctic Treaty meetings, hosted this year by the government of Japan in Hiroshima. The event preceded a formal presentation on COP31 by host country Türkiye, which has established an extensive Antarctic program over the past decade.

"Antarctica is in many ways the key to maintaining today's coastlines", said Olaf Eisen, Professor for Glaciology at the Alfred Wegener Institute and University of Bremen. "It's not just a beautiful continent -- we need to keep its ice frozen in place. Scientists increasingly have recognized that future loss of vulnerable portions of Antarctica under ongoing climate change could lead to multi-meter sea-level rise over time."

Scientists have long acknowledged the threat of climate change to human existence. The iconic "Doomsday Clock" added climate change to its deliberations already in 2007, alongside nuclear threats and since last year, artificial intelligence (AI).

"Fossil fuels are like weapons of mass destruction on the slow plan," said Pam Pearson, a former U.S. diplomat who earlier worked on nuclear non-proliferation issues and now heads the International Cryosphere Climate Initiative (ICCI), a science-policy think tank. "Tragically, that future looks increasingly irreversible. Ice sheets take a long time to respond, but emissions today may lock in sea-level rise for centuries."

"It's frustrating because since we don't see it today, we think we can ignore it," she added. "But action on climate is just as urgent as other security risks."

Sea-level rise from the Antarctic Ice Sheet is not the only threat discussed at the annual Antarctic Treaty meetings – carbon dioxide concentrations in the atmosphere have also led to rising acidification in the Southern Ocean at levels that threaten shelled life. Scientists found shell damage already in the 2000's.

Sea ice loss brings additional threats. Rod Downie, Chief Advisor for Polar and Oceans Issues for WWF-UK, stressed to delegates in Hiroshima that the Emperor penguin "may well be heading down the slippery slope towards extinction by the end of this century" as they lose key nesting grounds.

"Antarctica is a powerful symbol of international cooperation, recognized under the Antarctic Treaty as the world's first 'peaceful continent free of nuclear weapons'," added Julius Garbe, an ice sheet modeler and ICCI's Antarctica Director, also in Hiroshima. "This exhibit visually demonstrates how melting ice from this peaceful continent threatens global security and peace."

The experts -- which in addition to Germany and the UK came from Türkiye, Japan, Argentina, China and Australia -- expressed hope that Antarctica and its connection to sea-level rise be included as an explicit focus at the upcoming climate meetings in November. Despite threats like sea-level rise or glacier collapse, no climate COP has ever included a focus on Antarctica or any global cryosphere (snow and ice) regions.

Photos and graphics:

https://drive.google.com/drive/folders/16lzdJ7Bga86u0k9_hlteCP383x-hM75R
<https://iccinet.org/ATCM-hiroshima/>

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